

CLAIMS

1. Method for assaying a biological or chemical sample, comprising a step of illuminating the sample (10) by means of a light beam (17) coming from a source (11),

5 characterised in that it also comprises the following steps:

- producing an image including the image of the beam (18) diffused by the sample (10),

- analysing the image according to reference
10 criteria,

- extracting information specific to the light/sample beam interaction,

- calculating the assay,

and in that the analysis consists of the
15 examination of the spatial structure of the image and the distribution of the light energy in this image.

2. Method according to claim 1, which comprises a previous step of placing the sample (10) in a chamber
20 (12) of which all of the sides are transparent.

3. Method according to claim 1, characterised in that the diffusion is Raman scattering, fluorescence scattering, a molecular diffusion or particle
25 scattering.

4. Method according to claim 1, in which the assay is calculated with respect to a calibration between the

light energy measurement and the sample concentration or amount.

5 5. Method according to claim 1, in which the assay is calculated with respect to the analysis of the kinetics of the biological or chemical reaction.

10 6. Method according to claim 1, in which a first zone of interest (25) around the excited volume zone, and a second zone of interest (26) next to this first zone are defined, and the specific signal is measured by subtracting the sum of all of the pixels of the first zone (25) from the sum of all of the pixels of the second zone (26).

15

7. Application of the method according to any one of the claims preceding the fluorescence.